

# Drought Information Statement for Middle Tennessee

Valid October 26, 2023

Issued By: NWS Nashville, TN Contact information: <a href="mailto:sr-ohx.dss@noaa.gov">sr-ohx.dss@noaa.gov</a>

- This product will be updated every Thursday as long as drought conditions are present.
- Please see all currently available products at <a href="https://drought.gov/drought-information-statements">https://drought.gov/drought-information-statements</a>.
- Please visit <a href="https://www.weather.gov/ohx/DroughtInformationStatement">https://www.weather.gov/ohx/DroughtInformationStatement</a> for previous statements.



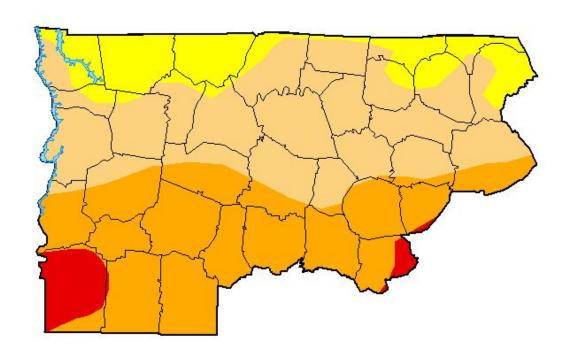


## **U.S Drought Monitor**

Link to the latest U.S. Drought Monitor for Middle Tennessee

- Drought intensity and Extent
  - D4 Exceptional Drought: None
  - D3 Extreme Drought: Wayne County, and portions of Lawrence, Grundy, and Van Buren counties
  - D2 Severe Drought: Most areas south of Interstate 40
  - D1 Moderate Drought: Most areas along and north of Interstate 40
  - D0 Abnormally Dry: Limited to counties along the Kentucky state line

U.S. Drought Monitor
Nashville, TN WFO



#### October 24, 2023

(Released Thursday, Oct. 26, 2023)
Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	0.00	100.00	84.40	41.75	4.39	0.00
Last Week 10-17-2023	0.00	100.00	77.46	19.52	0.00	0.00
3 Month's Ago 07-25-2023	98.45	1.55	0.00	0.00	0.00	0.00
Start of Calendar Year 01-03-2023	100.00	0.00	0.00	0.00	0.00	0.00
Start of Water Year 09-26-2023	38.66	61.34	0.00	0.00	0.00	0.00
One Year Ago 10-25-2022	10.61	89.39	68.83	6.05	0.00	0.00



The Drought Monitor focuses on broad-scale conditions.
Local conditions may vary. For more information on the
Drought Monitor, go to https://droughtmonitor.unl.edu/About.aspx

Rocky Bilotta NCEI/NOAA







droughtmonitor.unl.edu

Image Caption: U.S. Drought Monitor valid 7am CT, October 26, 2023



# Recent Change in Drought Intensity

Link to the <u>latest 4-week change map</u> for Middle Tennessee

- Four Week Drought Monitor Class Change
  - O Drought Worsened: All counties saw at least 1 class of degradation, with some southern Middle Tennessee counties seeing 3 classes of degradation over the last 4 weeks
  - No Change: None
  - Drought Improved: None

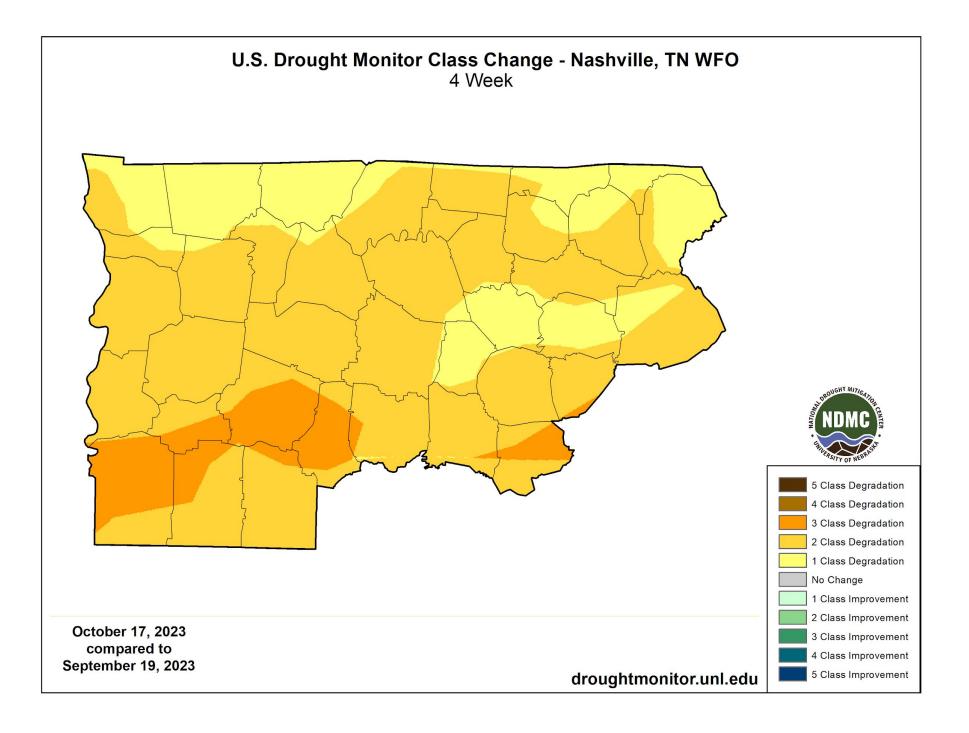


Image Caption: U.S. Drought Monitor valid 7am CT, October 26, 2023

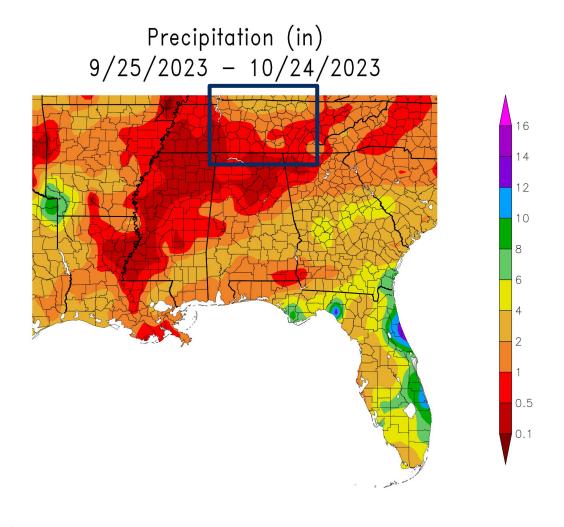


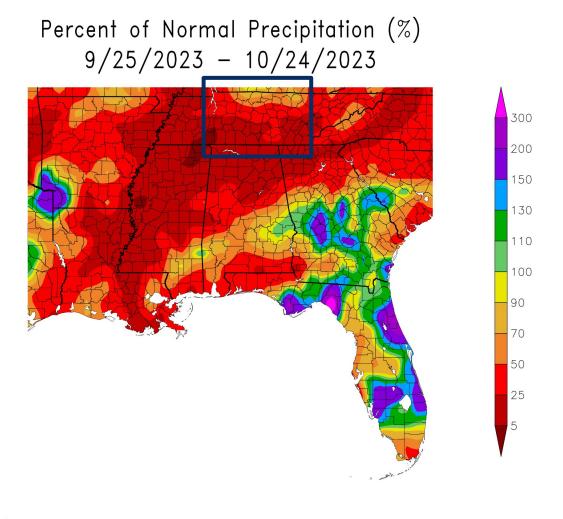


## Precipitation

#### Over the past 30 days from the High Plains Regional Climate Center

Precipitation has been slightly below normal across the northern portions of Middle Tennessee (70-90% of normal), to well below normal across the southern portions of the mid-state (5% of normal or less).





Generated 10/25/2023 at HPRCC using provisional data.

NOAA Regional Climate Centers

Generated 10/25/2023 at HPRCC using provisional data.

NOAA Regional Climate Centers

#### **Image Captions:**

Left - <u>Precipitation Amount</u>
Right - <u>Percent of Normal Precipitation</u>
Data Courtesy High Plains Regional Climate Center

Data over the past 30 days ending October 24, 2023





# **Summary of Impacts**

Links: See/submit Condition Monitoring Observer Reports (CMOR) and view the Drought Impacts Reporter

## **Hydrologic Impacts**

 Stream flows are below normal to much below for some areas of Middle Tennessee, especially for portions of the Duck River.

## **Agricultural Impacts**

• There are no known impacts at this time as the growing season has ended.

## **Fire Hazard Impacts**

Burn bans are in effect for some areas due to the heightened fire danger risk.

## Other Impacts

There are no known impacts at this time.

## **Mitigation actions**

Please refer to your municipality and/or water provider for mitigation information.





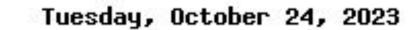
## Hydrologic Conditions and Impacts

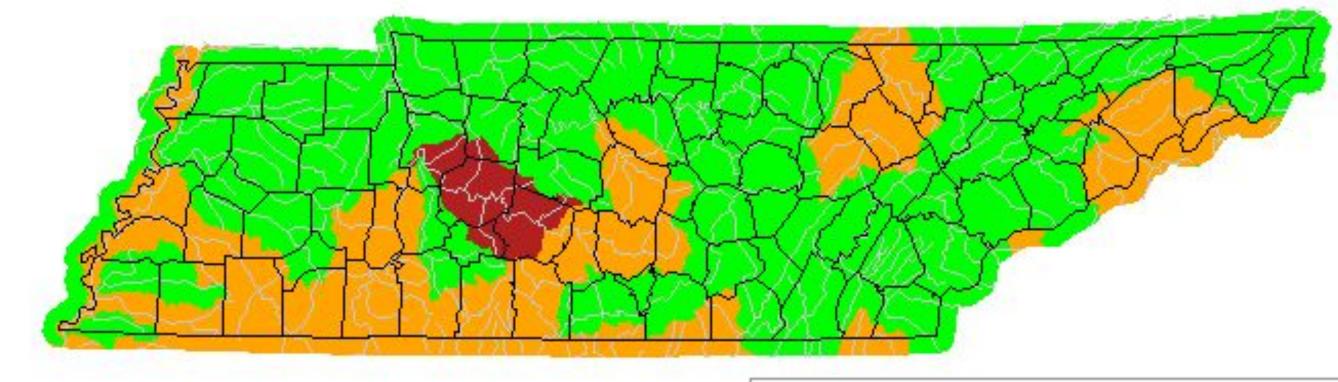
## Main Takeaways

- Below normal to much below normal flows are occurring in the Duck River basin
- Low flows are typical in the fall as it is the driest time of the year

## **Impacts**

Further decreases of flows may lead to water supply impacts, navigation impacts, and biological effects.







	Expl	anation	- Perce	ntile cla	asses		
	<10	10-24	25-75	76-90	>90	High	No Data
	Much below normal	Below normal	Normal	Above normal	Much above normal		

#### Image Captions:

USGS 7 day average streamflow HUC map valid October 24, 2023





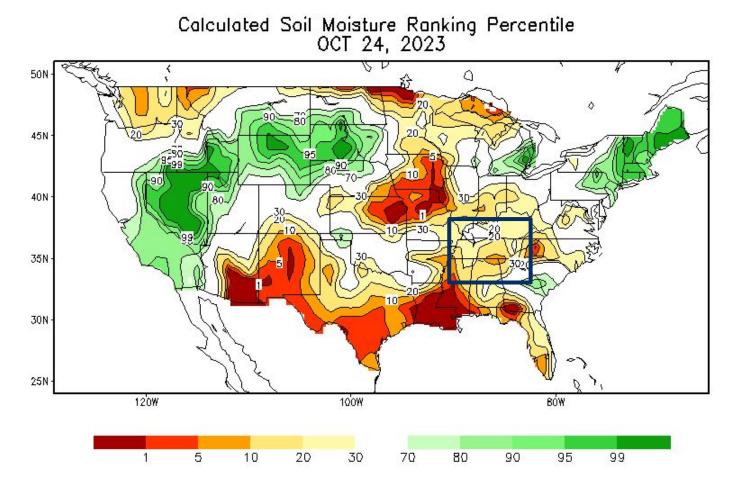
# Agricultural Impacts

#### Main Takeaways

 Soil moisture is lacking across the mid-state with most areas in the 10-20th percentile.

## **Impacts**

Despite the low soil moisture there are no known impacts to agriculture as the growing season has ended.



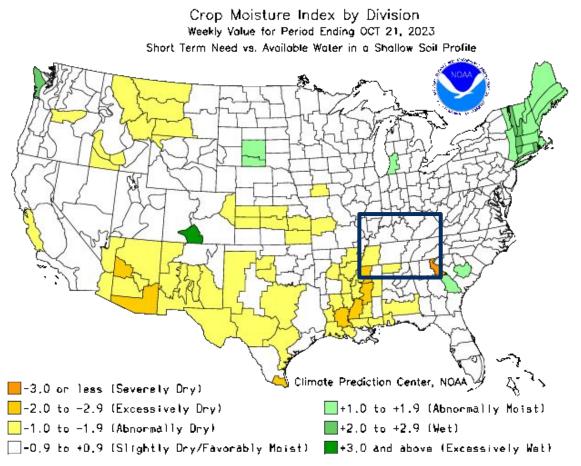


Image Captions:

Left: CPC Calculated Soil Moisture Ranking

Percentile valid April 20, 2023

Right: Crop Moisture Index by Division. Weekly

value for period ending October 21, 2023





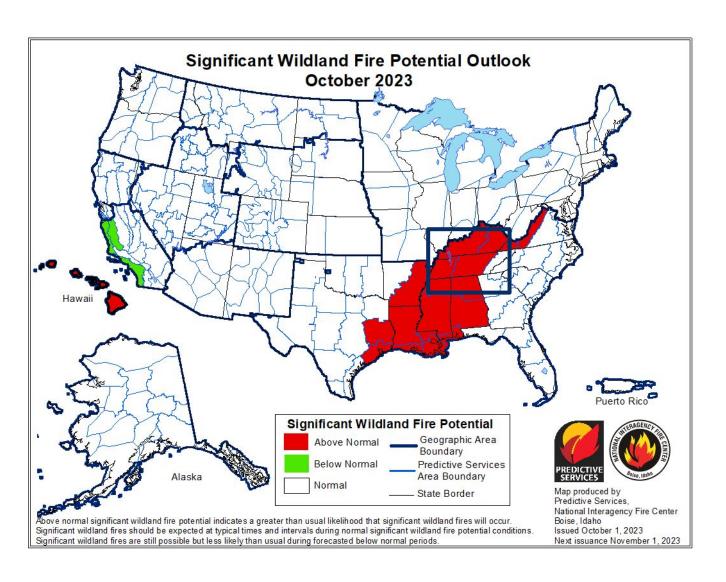
## Fire Hazard Impacts

Link to Wildfire Potential Outlooks from the National Interagency Coordination Center.

#### **Main Takeaways**

 There is an above normal wildland fire potential due to the current dryness, and the availability of surface fuels as leaves continue to fall.

Latest TN Burn Ban map available <u>here.</u>



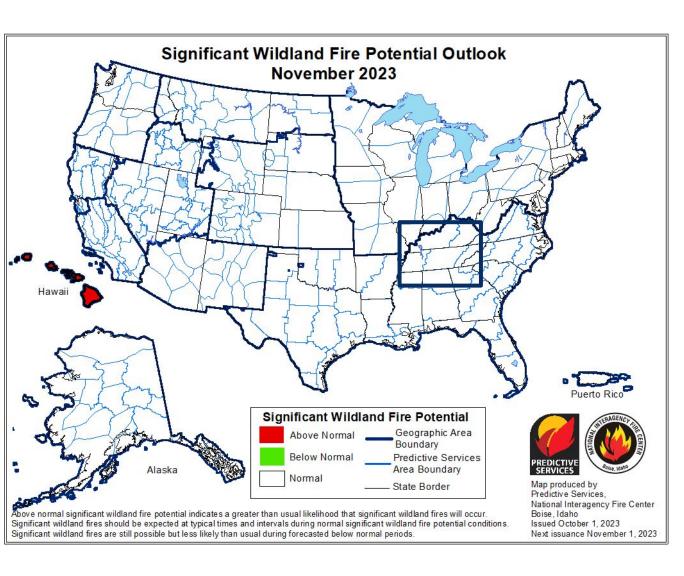


Image Caption: Significant Wildland Fire Potential Monthly Outlook for October 2023





# Seven Day Precipitation Forecast

• Expect minimal precipitation (0.50 inches or less) over the next 7 days for most of the mid-state, except for areas northwest of Nashville where 1.0 to 1.5 inches of precipitation is possible.

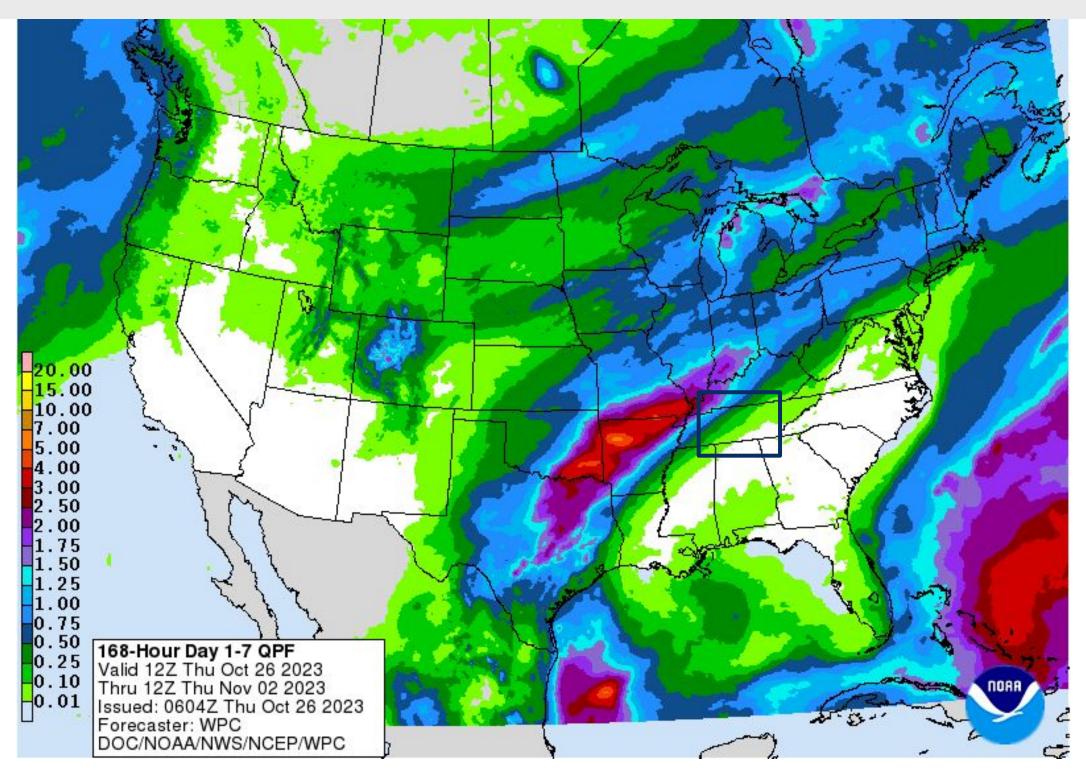


Image Caption: Weather Prediction Center <u>7-day precipitation forecast</u> valid Thursday, October 26th until Thursday, November 2nd





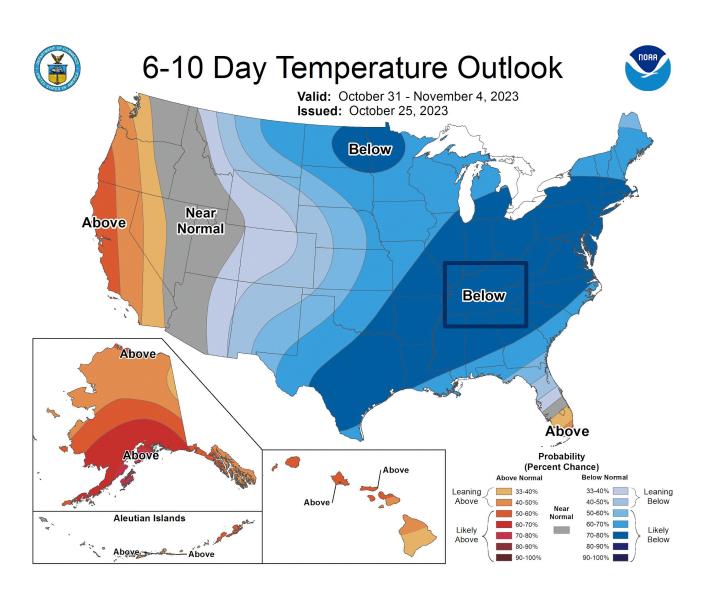
# 6-10 Day Outlook

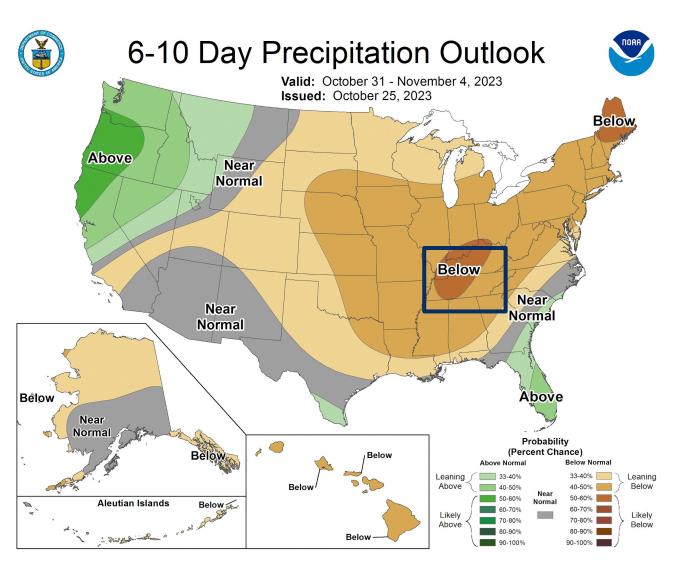
#### Temperature and Precipitation Outlook

#### Main Takeaways

- Main Takeaway
- Main Takeaway

Possible Impact Goes Here





#### Image Captions:

Left - <u>Climate Prediction Center 6-10 Day Temperature Outlook</u> Right - <u>Climate Prediction Center 6-10 Day Precipitation Outlook</u>







# 8-14 Day Outlook

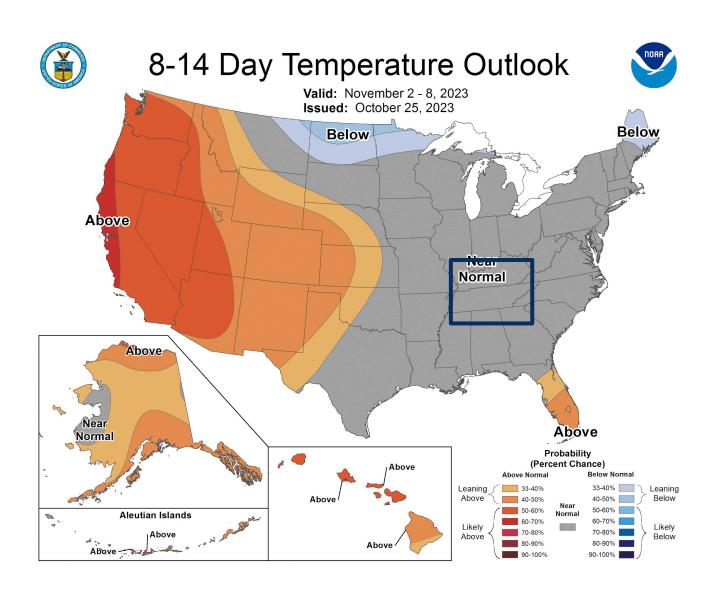
#### Temperature and Precipitation Outlook

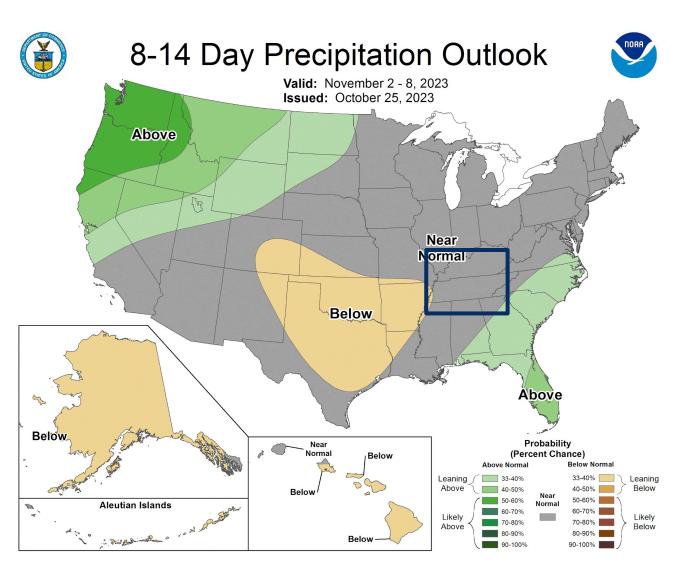
#### Main Takeaways

- Equal chances of above, near, and below normal temperatures
- Equal chances of above, near, and below normal precipitation

## **Possible Impact**

The lack of significant precipitation over the next two weeks could lead to further degradation of drought across Middle Tennessee.





**Image Captions:** 

Left - <u>Climate Prediction Center 8-14 Day Temperature Outlook</u> Right - <u>Climate Prediction Center 8-14 Day Precipitation Outlook</u>

Valid November 2nd to November 8th





## Seasonal Outlook

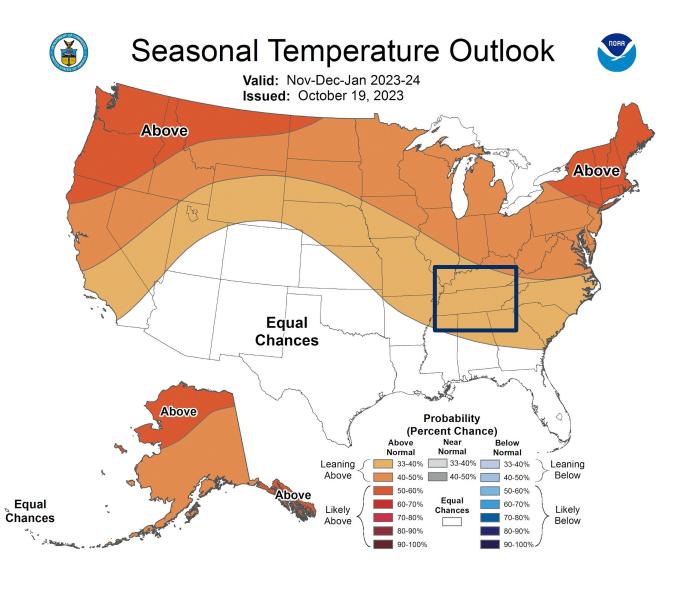
#### Seasonal Temperature and Precipitation Outlook

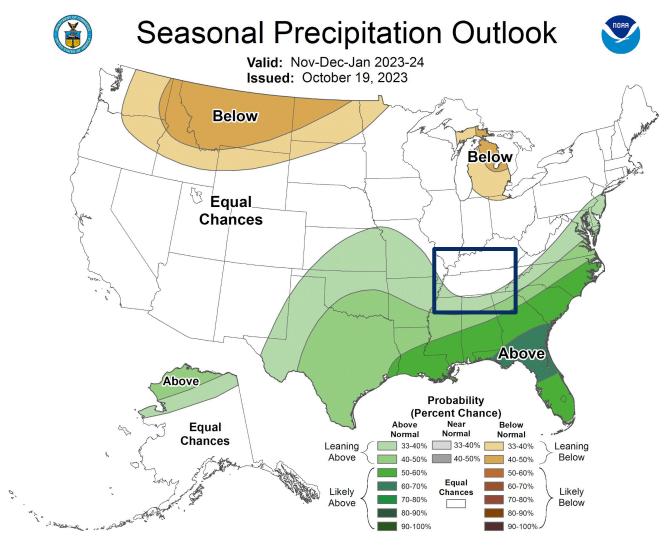
#### Main Takeaways

- Above normal temperatures are favored for Nov-Dec-Jan
- There are equal chances of above, near, and below normal precipitation for Nov-Dec-Jan

## **Possible Impact**

With equal chances for above, near, or below normal precipitation drought improvement is not likely through the fall, but becomes more likely in the winter to early spring months.





**Image Captions:** 

Left - Climate Prediction Center Seasonal Temperature Outlook

Right - <u>Climate Prediction Center Seasonal Precipitation Outlook</u>

Valid November 2023 to January 2024





## **Drought Outlook**

The latest monthly and seasonal outlooks can be found on the CPC homepage

#### Main Takeaways

- Drought conditions have developed across all of Middle Tennessee through the current period.
- Drought conditions will persist for some time, but are expected to gradually improve with removal possible by the end of January.

## **Possible Impact**

Effects from El Niño could keep significant precipitation away from the mid-state through the fall, then bring precipitation back in the winter to early spring months that should ease drought impacts.

# U.S. Seasonal Drought Outlook Drought Tendency During the Valid Period

Valid for October 19, 2023 - January 31, 202 Released October 19, 202

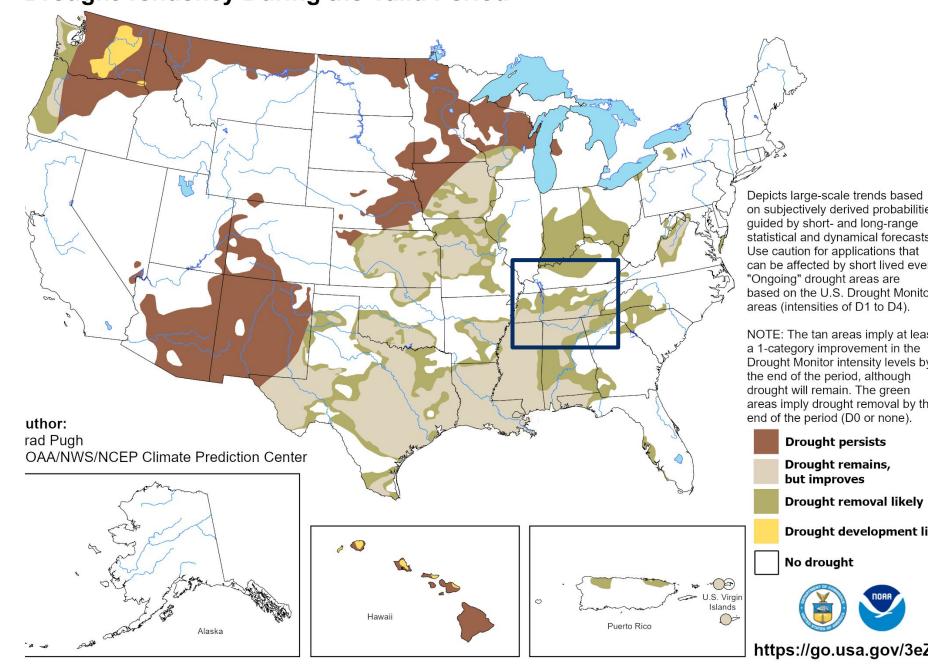


Image Captions:

Climate Prediction Center Seasonal Drought Outlook Released October 19, 2023 valid for Oct-Jan 2024

National Oceanic and Atmospheric Administration
U.S. Department of Commerce